DEVELOPING ENGLISH MULTIMEDIA BASED TEACHING MEDIA BY USING MICROSOFT POWER POINT

Verawati, Maria Arina Luardini, Natalina Asi Graduate Program in English Education University of Palangka Raya

Abstract

The purpose of this R&D was to develop an English multimedia based teaching media by using Microsoft power point as the demand of 2013 curriculum in the utilization of the ICT in the teaching learning process. The product of this research was interactive media with two different topics. The subject of this research was the tenth grade students of SMAN 1 Kuala Pembuang in academic year 2018/2019. The objective of this research was how to develop English multimedia based teaching media by using Microsoft power point for tenth graders. This research was conducted by using Research and Development Method (R and D) where the product was created and tried out to the subject. The instruments of this research were questionnaire, interview, expert validation, and observation which were handed out to the students, teacher and the experts. The data collected were analyzed qualitatively. The result of the need assessment and the interview showed that both the teacher and students required multimedia based teaching media which are relevant to their need and interest and the demand of 2013 curriculum about the utilization of ICT. The data collected from observation showed that media developed was appropriate for teaching writing descriptive text.

Keywords: Multimedia based, teaching media, descriptive text

INTRODUCTION

In general, language consists of four main skills. They are listening, speaking, reading, and writing. These four language skills can be divided into two groups as to the input and output of the language itself, like listening and reading belongs to the input, while speaking and writing belongs to the output. The output of language, especially speaking, can quickly mastered by the users' level of language acquisition due to language as tools of humans communication.

Teaching media is a tool to make teaching learning process run effectively and efficiently. According to Arsyad (2009:4) teaching media is a media that bring instructional purpose of massages or information of learning. Media is means of expressing massage and information. In addition, Briggs in Aniqotunnisa (2013:10) stated that teaching media is all physical form that can convey message and can stimulate students to learn.

There are many kinds of teaching media. Based on Sahid (2010:3) teaching media can be grouped as: Visual Media, Media, Projected Still Media, Audio Projected Motion Media. The other classifications of teaching media also stated by Leshin, et al in Arsyad (2009:36) those are: Human-based media (teacher, instructor, role-play, group activity, fieldtrip); Printed-based media (book, guide line, workbook, paper); Visual-based media (video, film, slide-tape program, television); and Computer-based media (interactive video, hypertext).

Everv media have their own characteristics. One of them is computer. Computer shows animation by using some software that related to topic of learning, so can make teaching and learning process more interesting for student. Computer also multimedia. include as а Computer technology utilization in teaching learning activity has been regulated in Permendiknas Nomor 16 Tahun 2007, "about Standard of Academic Qualification and Teacher Competence, in Pedagogic Competence of SMA/SMK Teacher – Core Competence -Utilizing information and communication technology for the interest of learning, with the Subject Competence, Utilizing information and communication technology in the lessons learned."

Permendiknas Nomor 41 Tahun 2007, "about Standard Process where in the preparation of the Lesson Plan is expected to have applied technology and communication." From the researcher experience, the utilization of computer technology in SMAN 1 Kuala Pembuang is still low, although their facilities are adequate enough.

Based on the result of the questionnaire given to both the students and the teacher, the researcher found that the teacher still uses conventional teaching technique and mostly uses textbook as the teaching media in teaching learning process. This kind of teaching technique is not fulfill the demand of curriculum 2013 in the utilization of computer technology in teaching learning process. Based on the current fact, it can conclude that they need some innovation of teaching media, especially for multimedia.

Svarif (2009:1)stated that multimedia can be called as many medium. The components of them consist of text, picture, video and audio. Meanwhile, according to Mahajan (2012:6) multimedia uses multiple forms of text, audio, graphics, animation or video to convey information. In other word, communication using multimedia means communication using one media. Developing multimedia based teaching media is assumed to help teaching learning process run interesting and effectively.

By using English multimedia based teaching media, students will be able to see, hear and read, as Scharmm in Susanty (2015) stated that media is technology or instructional messages that can be manipulated, seen, heard and read. A person can insert images and text and fill it with sound to pronounce the images or the text shown in the slide. The person is also able to combine videos or events, can set series of activities / exercises, and save it in a file. This kind of media is able to reach large audience in one-time presentation by connecting with an LCD Projector. It can be use not only once or twice, but it is able to be used repeatedly.

The media the researcher wants to develop in this research will use Microsoft Power Point. It will start from showing several pictures to provoke the students' motivation, followed by some vocabularies related to the pictures and be equipped with sound in how to pronounce each word. Colorful images showed in interactive media can help students in describing the physical appearances of the object they learn. Due to the current fact the researcher decided to develop English multimedia based teaching media by using microsoft power point for tenth grade students in SMAN 1 Kuala Pembuang.

Then, the research question is how to develop English multimedia based teaching media by using microsoft power point for tenth grade students in SMAN 1 Kuala Pembuang? To answer this research question, researcher used three stages of R&D, those are plan, development, and evaluation.

The researcher expected the result of this research can be used by the students, English teachers, the researcher, and educational institution. For the students, this teaching media hopefully can make them interest and enthusiastic in learning English. For the teacher it can give them experience to use multimedia based teaching media using Microsoft power point. So, they have another media to use besides the textbook to convey the materials in their teaching learning process.

Then, benefit for the researcher is a valuable experience as a candidate of

4

professional teacher in making multimedia based teaching media. And the last is benefit for educational institution, this research is as reference to increase education quality by using this media.

METHODOLOGY

This research used research and development method. According to Sugiyono (2014:407)research and development method is a method use to produce a certain product, and test the effectiveness of the product. Furthermore Gall, et. al (2003:45) stated that basically research and development have two main objectives, they are: (1) to develop a product and (2) to test the effectiveness of the product. This research conducted to develop English multimedia-based teaching media using Microsoft power point for tenth grade of SMAN 1 Kuala Pembuang without test the effectiveness of this product toward students' achievement.

However, in this study the writer used CBI model. Privanto (2009:7) explained that the steps in developing computer based instructional (CBI) consists of three stages, those are (1) Development, Plan, (2)and (3) Evaluation. The purpose of plan stage is for collecting relevant information about the need of English multimedia based teaching media development for SMAN 1 Kuala Pembuang, which consist of need analysis, material survey, and determine learning objectives.

The need analysis conducted by giving questionnaire and interview to the English teacher and also questionnaire to the tenth grade students in SMAN 1 Kuala Pembuang. Then the researcher analyzed the result of the questionnaire and the interview given to determine the students need about the teaching media. Then, the development step is the step to develop the product. In this stage the researcher started from choosing some pictures, making the text to displayed in the page, also recording the sound for narration of each page of the product. Furthermore, the media created by using software, that is Microsoft power point for develops this English teaching media.

Finally, the evaluation step in this case try-out the product step consists of formative and summative evaluation. Data collecting process that the goal is to improve and increase the quality of the developing product called as formative evaluation. In this research, the formative evaluation means expert validation. While summative evaluation, in this case try-out the product is an evaluation to give final evaluation to the product.

For subject of this research in product validation was the tenth grade students in SMAN 1 Kuala Pembuang which consist of 28 students. The experts are divided into two groups, those are teaching material expert and teaching media expert. Teaching material expert validate educational criteria of the product, while teaching media expert validate layout criteria of the product.

Furthermore, the instrument that used in this research was observation sheet. The result of the observation sheet is used to evaluate the implementation or attractiveness of this media. The observation was done by English teacher who taught at the tenth grade. They observed the two meeting of the try out before. The observation was done based on some aspects they had to evaluate on observation sheet. The aspects were activity, implementation teaching of scientific approach, and the use of media.

The type of data is both qualitative and quantitative. The data gotten from some evaluations, comments, and suggestion from expert of teaching media, expert of

6

material, and also student's evaluation about the product in the questioner instrument. Some comments from expert of teaching media and teaching material used to revise the design of product before the product is used in whole class. While the responds of students used to investigate the quality or attractiveness of the product when use in teaching and learning process.

FINDINGS

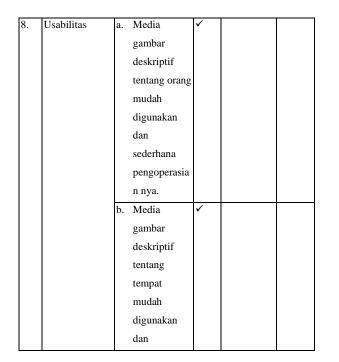
Developing English multimedia based teaching media for tenth grader of SMAN 1 Kuala Pembuang followed 3 steps, those are: plan, development, and evaluation. As the researcher stated above there are two kinds of evaluation. The first one is expert validation and the second one is try-out of the product. Expert validation result is aimed for validate and revise the product before conducting try-out. Then, try-out result is to know the quality or attractiveness of the product.

To know the validity of the product the researcher conducted validation to some experts, they are two teaching material experts and two teaching media experts. Teaching material expert validate the product based on educational criteria, while teaching media expert based on layout criteria. As mentioned before, the researcher used observation sheet as the instrument in collecting the data. It was consisted of some aspects, they are teaching activity, implementation of scientific approach, and the use of media. The data of expert validation can be seen as follows.

Table 1. Angket validasi Ahli Dosen terhadap Media Interaktif pembelajaran teks deskriptif untuk siswa kelas X SMAN 1 Kuala Pembuang

No	Aspek		Kriteria	Ya	Sebagian	Tidak
1.	Bahasa	a.	Sesuai	√		
			dengan level			
			siswa			
		b.	Dapat	✓		
			dipahami			
			oleh siswa			
2.	Isi materi	a.	Jelas dan	✓		
			sesuai			
		b.	Dapat	✓		
			dipahami			
			oleh siswa			
		c.	Sesuai	✓		
			dengan			
			bidang dan			
			minat siswa			
3.	Cakupan materi	a.	Sesuai	✓		
			dengan			
			kebutuhan			
			siswa X			
			SMAN 1			
			Kuala			
			Pembuang			
		b.	Sesuai	✓		
			dengan level			
			siswa kelas X			
			SMAN 1			
			Kuala			
			Pembuang			
4.	Dubbing	a.	Gambar	✓		
	_		terlihat jelas			
		b.			√	
			tepat			
5.	Narasi	a.	Isi media	✓		
			atau teks			
			sesuai			
			dengan			
			generic			
			structure teks			
			deskriptif			
		<u> </u>	r			

		b.	Isi dari media	✓		
			memuat			
			bagian			
			identifikasi			
		с.	Isi dari media	✓		
			memuat			
			bagian			
			deskripsi			
		d.	Isi media	✓		
		.	atau teks			
			mampu			
			mendeskripsi			
			kan objek			
			orang yang			
			dimaksud.			
		_				
		e.	Isi media atau teks	•		
			mampu			
			mendeskripsi			
			kan objek			
			tempat yang			
			dimaksud.			
		f.	Isi teks	~		
			mendukung			
			dan sesuai			
			dengan objek			
			yang			
			ditampilkan			
6.	Komposisi	a.	Objek	~		
			gambar yang			
			ditampilkan			
			dapat terlihat			
			dengan jelas			
1			dan mudah			
1			dipahami			
7.	Reusable	a.	Dapat	✓		
			diimplement			
			asikan dalam			
			skill atau			
			materi			
1			pembelajaran			
			lainnya			
1		b.	Dapat	✓		
1			digunakan			
			sebagai			
1			bahan			
1			pembelajaran			
			dirumah			
L	L	I		I	1	1



The elaboration is as follows:

The expert agreed that language used in the media was suitable for the students' level. The expert also stated the language is easy to understand by the students. For the content of the material the expert agreed that it is suitable and clear, easy to understand by the students, and suitable with the students major and interest. Then, material coverage is suitable with the students' need and the students' level that is tenth grade students in SMAN 1 Kuala Pembuang. For the picture displayed in the media the expert stated it can be seen clearly. The pronunciation is

	sederhana		
	pengoperasia		
	n nya.		
L			

Expert validation table adapted

from Ni'mah (2015)

Palangkaraya, Januari 2019

Prof. Dr. Wahyuningsih Usadiati, M. Pd NIP. 19511006 198003 2 001

correct, but there are still incorrect. The content of the media in this case was the text was suitable to the generic structure of the descriptive text which consists of identification and description parts. This media is able to describe both the object of person and object of place. The picture displayed in the media can be seen clearly and easy to understand. This media can be implemented in other skills or other material, it also can be used individually by the students at home. The last the expert agree that this media is easy to use and simple to operate.

					Γ				pemaham			
									an isi			
									media			
									gambar)			
								b.	Picture		✓	
Tab	le2. Angket	Validasi Ah	li M	edia					(komposi			
terh	adan multii	media based	teac	hino					si gambar			
									dan suara			
mea	a by using r	Microsoft po	wer	point					sesuai dan			
No.	Aspek	Kriteria	Ya	Sebagian	Tida	k			medukun			
1.	Originalitas	a. Media							g			
1.	Onginantas	interaktif							pemaham			
		tidak							an isi			
									teks)			
		pernah			Ī	3.	Angle	a.	Pemilihan	1		
		dibuat							gambar			
		sebelumn							efektif,			
		ya							kreatif			
		b. Media							dan			
		interaktif							menunjan			
		deskriptif							g isi dari			
		tentang							teks			
		orang							dekriptif			
		original			-	4.	 V					
		dalam hal				4.	Komposisi	a.	Gambar			
		editing							yang			
		c. Media		· · · · · · · · · · · · · · · · · · ·					ditampilk			
		interaktif							an dapat			
		deskriptif							terlihat			
		tentang							dengan			
		tempat							jelas dan			
		original							mudah			
		dalam hal							dipahami			
		editing			Ī	5.	Editing	a.	Effect		✓	
2.	Visual	a. Layout							(efek			
۷.	v 15uäl								gambar			
		(tata letak							dan suara			
		visual							menarik			
		menduku							dan tidak			
		ng										

		membosa	deskriptif
		nkan)	teks
			mudah
6.	Kompatibilit	a. Media	digunaka
0.	as	interaktif	n dan
	us	dapat	sederhana
		digunaka	pengoper
		n oleh	asian nya.
		semua	Expert validation table adapted from
		orang	Ni'mah (2015)
		(guru	
		ataupun	Palangkaraya, Februari 2019
		siswa)	
		dengan	Dr. Chandra Anugerah Putra, M.I.Kom
		mudah	NIDN. 1122108604
7.	Usabilitas	a. Media	
		interaktif	
		tentang	

The elaboration is as follows:

The expert agreed that this media never been made before. In case of editing the expert agreed that this media describing about people was original. Next, in case of editing the expert agreed that this media describing about tourism place was original. According to the expert some of the pictures or the composition of the picture and the narration was supporting the understanding of material. The expert also agreed that the visual layout was supporting the understanding of the material. The choice of picture was creative and supporting the understanding the material. The pictures displayed in the media was easy to understand and clearly seen. Some of the effect in the media according to the expert was interesting and some others are less interesting. The transition of each picture was suitable. The expert agreed that this media is easy to use by both the teacher and the students. And the last this media is simple to operate.

Ι	Te	aching	YES	NO	COMM
	Ac	tivity			ENT
	Α	The contents	~		
		presented are			
		suitable for			
		the material.			
	В	The use of	~		
		ICT.			
	С	Media used	~		
		is			
		appropriate			
		with the			
		material.			
	D	Interactive	~		
		media used			
		is suitable to			
		teach			
		descriptive			
		text.			
II		Implementa	YES	NO	COMM
		tion of			ENT
		instructiona			
		l media			
	А	Activity	~		
		done in			
		stimulation			
		step is			
		suitable.			
	В	Activity	✓		
	Ъ	5			
	D	done in			
	D				

Table3. Observation sheet on the try out on the topic "Sungai Bakau Beach"

		step is			
		suitable.			
	С	Activity			
	C	done in data	•		
		collection			
		step is			
		suitable.			
	D	Activity	~		
		done in			
		verification			
		step is			
		suitable.			
	Е	Activity	~		
		done in			
		generalizatio			
		n step is			
		suitable.			
		suitable.			
III		The use of	YES	NO	СОММ
III			YES	NO	COMM ENT
III	A	The use of	YES	NO	
III	A	The use of media	YES	NO	
III	A	The use of media The	YES	NO	
III	A	The use of media The interactive	YES	NO	
III	A	The use of media The interactive media is clear to see	YES	NO	
Ш	A	The use of media The interactive media is clear to see from any	YES	NO	
ш	A	The use of media The interactive media is clear to see from any sides of	YES	NO	
III		The use of media The interactiver media is clear to see from any sides of classroom.	YES	NO	
III	A	The use of media The interactive media is clear to see from any sides of classroom. The	YES	NO	
ш		The use of media The interactive media is clear to see from any sides of classroom. The interactive	YES	NO	
III		The use of media I interactiver media is clear to see from any sides of classroom. The interactiver media does	YES	NO	
ш		The use of media The The interactive media is clear to see from any sides of classroom. The interactive media does not have any	YES	NO V	
III	В	The use of media I interactive media is clear to see from any sides of classroom. The interactive media does not have any lags.	YES	<u>NO</u>	
III		The use of media The The interactive media is clear to see from any sides of classroom. The interactive media does not have any	YES	NO	

	media is able		
	to		
	comprehend.		
D	The duration of interactive media is suitable.	~	
E	The students are being active in the class.	~	

F	Students pay attention to	~	
	the media.		
Η	Students	~	
	show their		
	interest in		
	the teaching		
	learning		
	process with		
	the		
	interactive		
	media.		

The first was on the teaching activity, observer agreed that local content presented in the material is suitable. The topic was Sungai Bakau Beach a famous tourism place in Kuala Pembuang. They also added that ICT used had been well applied. The interactive media was appropriate to be discussed on the material of descriptive text describing tourism place.

Regarding the implementation of scientific approach, the observer stated all steps of scientific approach had been well implemented. The activities done each was step meaning full and as what the 2013 curriculum demand.

On the discussion of the media use, the observer stated both the images and the text are clear enough to see from any side of the classroom. They added that duration of the media was suitable to be observed in observing step. It was not too long or too short. The observer also added that the media which could be managed easily. Observers stated that students paid attention to the learning process and showed their interest in observing the media. Last discussion was on the comment

and suggestion; they claimed that the sound

of the Interactive media clear enough to be

listened on the back of the classroom.

Table4. Observation sheet on the try out on the topic

I	Tea	aching Activity	YES	NO	COMMENT
	А	The contents	~		
		presented are			
		suitable for the			
		material.			
	В	The use of ICT.	~		
	С	Media used is	~		
		appropriate with			
		the material.			
	D	Interactive media	~		
		used is suitable			
		to teach			
		descriptive text.			
Π		Implementation	YES	NO	COMMENT
		of instructional			
		media			
	А	Activity done in	~		
		stimulation step			
		is suitable.			
	В	Activity done in	~		
		problem			
		statement step is			
		suitable.			

"Do You Know Lee Min Ho?"

	-				
	С	Activity done in	~		
		data collection			
		step is suitable.			
	D	Activity done in	~		
	2	verification step			
		is suitable.			
	Е	Activity done in	~		
		generalization			
		step is suitable.			
III		The use of	YES	NO	COMMENT
		media			
	А	The interactive	~		
		media is clear to			
		see from any			
		sides of			
		classroom.			
		classiooni.			
	В	The interactive	~		
		media does not			
		have any lags.			
	С	The interactive			
		THE INCLOSE	v		
	C				
	C	media is able to comprehend.			

D	The duration of interactive media is suitable.	V	
Е	The students are being active in the class.	~	

F	Students pay	~	
	attention to the		
	media.		
Η	Students show	~	
	their interest in		
	the teaching		
	learning process		
	with the		
	interactive		
	media.		

Concerning on the teaching activity, observer stated that the up to date content presented is suitable. They also added that ICT used had been well applied. The media was appropriate to discussed on the material of descriptive text describing famous people.

Regarding the implementation of scientific approach, the observers stated that all steps of scientific approach had been well implemented. Starting from observing, questioning, experimenting, associating and then communicating, they were done with activities which in line step.

On the discussion of the media use, the observers stated that pictures are clear enough to see from any side of the classroom. they added that the duration of the media is suitable to be use easily by the teacher. Observers stated that students showed their interest in observing the media and they paid attention to the material being learned.

Last discussion was on the comment and suggestion; they claimed that the sound of the multimedia based teaching media clear enough to be listened on the back of the classroom.

DISCUSSION

The purpose this R&D research was to find out how to develop English multimedia based teaching media by using microsoft power point for tenth grade students in SMAN 1 Kuala Pembuang.

The expert and the major content subject teacher acted as a consultant and observer to select, explain, and clarify the multimedia based teaching media developed. The researcher acted as actor to apply the multimedia based teaching media developed, and as the narrator in the multimedia based teaching media developed. Concerning on the result of need analysis and interview, the multimedia based teaching media by using Microsoft Power Point were developed. In order to evaluate the media, the researcher arranged a validation sheet form to be filled by the experts. There were two experts to validate the media, first was English lecturer to validate the aspect of the media and material. The second expert was media expert to validate aspect of the media. The result showed the identification of advantages and limitations of the media.

There are seven points of multimedia aspect that had been evaluated. The first was the originality of the media. The expert evaluated this interactive media was original in case of editing, since the interactive media made by the researcher by herself. The second point was emerged from visual aspect. The expert evaluated that some of the picture (the composition of the picture and the narration) is support the understanding of the material. The expert also stated that the resolution for the pictures was great. Third point was angle the expert evaluated that the picture chosen was effective to support the material in the interactive media. Fourth point was from the composition, the expert evaluated that the picture showed in the interactive media was clear and easy to understand. Fifth point was editing, the expert stated that some of the effect used by the researcher was quite interesting. Sixth point was compatibility, the expert evaluated that this interactive media can be operated by both

the teacher and the students. The last point of multimedia aspect evaluated was the usability, the expert evaluated that this interactive media about descriptive text is easy to use and very simple to operated even for someone who never been used it before.

the material For aspects. the evaluation showed the language and the range of the material was in line with the students' need and interest. It was also in accordance with the syllabus and students' level of competence. The content of the material was clear and suitable for the students. It was easy to digest and in accordance with the local content (descriptive text about tourism place) and the up to date celebrity (descriptive text about famous people). The language was suitable for the students' level of competence and understandable.

After the validation process, the video were tried out. There were two observers who observe and evaluate the teaching learning process to see how the interactive media used in the classroom. The result of the try out showed that the interactive media had been well applied and the teaching activity had adapted ICT used. The interactive media were suitable to be used on teaching writing descriptive text, the image and the text are clear enough to see and the students showed their interest in observing the media. The audio for the narration was clear enough even from the back of the class. However there was some mispronounce on the narration. Therefore the researcher had to fix the narration only on that part.

The revision of the video done based on the result of the validation and try out. The suggestion from experts and the observer had been used to revise the interactive media. This revision was expected to make the videos more appropriate and applicable for the tenth grade students of SMAN 1 Kuala Pembuang. Hopefully, the development of multimedia based teaching media could be used in teaching writing descriptive text and help the teacher to fulfill the curriculum demand for the utilize of ICT in teaching learning activity especially for teaching writing descriptive text. However, since this research was only conducted to develop interactive media based on the 2013 curriculum for the tenth grade students in SMAN 1 Kuala Pembuang, thus product could not be generalized to any other school of the same grade.

CONCLUSION AND SUGGESTION

Based on the findings and discussion above, it could be concluded that:

The developed media in this research are appropriate for teaching writing descriptive text at the tenth grade students of SMAN 1 Kuala Pembuang. The developed media were also more preferred by the students as the result of need assessment since it held their need, interest and audio and visual learning style. The multimedia based teaching media developed could be maximized the utilization of the ICT in the teaching leaning process. The multimedia based teaching media were developed in accordance with the demand of 2013 curriculum; it accommodated ICT use. The topics developed on the multimedia based teaching media had been chosen by the students. The multimedia based teaching media had been revised for several times and they had been tried out twice. Based on the result of expert validation, need assessment and observation, the multimedia based teaching by using Microsoft power point developed are appropriate for teaching writing descriptive text for tenth students of SMAN 1 grade Kuala Pembuang.

There are several suggestions which can be drawn from this research, they are; multimedia based teaching media should be developed on the basis of the result of students' need, combined with the school

18

needs which were in line with curriculum used. In preparing the students of English Education Research Program to develop the media based on 2013 curriculum, the result of this research can be used as one of source of information for them who learn about multimedia based teaching media. Multimedia based teaching media by using Microsoft power point should adopt the latest trend or news as the content and also promote the use of ICT. It is done with the purpose that the students will always interested with the theme of the content and

REFERENCES

- Gall, M. D, Gall, J. P., & Borg, W. R. 2003. *Educational Research: An Introduction*, 7th Edition. Boston: Pearson Education
- Mahajan, Gouvrav. 2012. Journal Education and Practice, ISSN 222-1735 (Paper) 2222-288X (online) Volume 3, Number 1, 2012. Multimedia in Teacher Education: Perceptions and Uses. Accessed at May 5, 2014.
- Ni'mah, Lailin. 2015. Development of Instructional Media for Teaching Descriptive Text at the Tenth Grade Students of SMAN 2 Palangka Raya. Unpublished Thesis. Palangka

not getting bored by the same topic each time. Moreover, students will get used to technology and it eases them to face and compete in the future. In order to enrich the knowledge and skills in developing English material especially for other writers who is interested in developing and doing the research of developing interactive media, it was needed to explore more related sources such as printed books, e-book, journals, and related articles. The Microsoft power point are better to be stored in files of portable storage (flash disk, external disk, etc)

> Raya: State University of Palangka Raya

- Priyanto, Dwi. 2009. Jurnal Pemikiran LAtenatif Kependidikan, INSANIA, Volume 14, Number 1, January-April 2009. Pengembangan Multimedia Pembelajaran Berbasisi Komputer. Accessed at January 27, 2015.
- Sahid. 2010. Pengembangan Media Pembelajaran Berbasis ICT(Article).

Accessed at January 27, 2019.

Sugiyono. 2014. Metode Penelitian Pendidikan Pendekatan *Kualitatif, Kuantitatif, dan R&D.* Bandung: Alfabeta.

Syarif, Ari Maulana. 2009. Mengolah Multimedia untuk Web dengan Photosho & Flash (Image, Animasi, Audio & Video). Jakarta: Gramedia.

Wirosari, Renanti Winong, et al. 2008. *Adobe Flash CS3 untuk Pemula*.

Yogyakarta: ANDI.